

Type 2N4957UB
Geometry 0006
Polarity PNP
Qual Level: JAN - JANTXV

Generic Part Number: 2N4957UB

REF: MIL-PRF-19500/426

**Request Quotation** 

## Features:

- Small signal RF silicon transistor designed for high-gain, low-noise applications.
- Housed in a cersot case.
- Also available in chip form using the 0006 chip geometry.
- The Min and Max limits shown are per MIL-PRF-19500/426 which Semicoa meets in all cases.



Cersot

## **Maximum Ratings**

T<sub>C</sub> = 25°C unless otherwise specified

Rating	Symbol	Rating	Unit	
Collector-Emitter Voltage	$V_{CEO}$	30	V	
Collector-Base Voltage	$V_{CBO}$	30	V	
Emitter-Base Voltage	V <sub>EBO</sub>	3.0	V	
Collector Current, Continuous	I <sub>C</sub>	30	А	
Operating Junction Temperature	TJ	-65 to +200	°C	
Storage Temperature	T <sub>STG</sub>	-65 to +200	°C	



## **Electrical Characteristics**

 $T_C = 25^{\circ}C$  unless otherwise specified

OFF Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage $I_C = 100 \mu A, I_E = 0$	V <sub>(BR)CBO</sub>	30	-	V
Collector-Emitter Breakdown Voltage $I_C = 1.0 \text{ mA}, I_B = 0$	V <sub>(BR)CEO</sub>	30		V
Emitter-Base Breakdown Voltage $I_E = 100 \mu A, I_C = 0$	V <sub>(BR)EBO</sub>	3.0		V
Collector-Base Cutoff Current $V_{CB} = 20 \text{ V}, I_E 0, T_C = +25^{\circ}C$	I <sub>CBO1</sub>		100	na
Collector-Base Cutoff Current $V_{CB} = 20 \text{ V}, I_E 0, T_C = +150^{\circ}\text{C}$	I <sub>CBO2</sub>		100	μΑ

ON Characteristics	Symbol	Min	Max	Unit
DC Current Gain				
$I_C = 0.5 \text{ mA}, V_{CE} = 10 \text{ V}$	h <sub>FE1</sub>	15		
$I_C = 2.0 \text{ mA}, V_{CE} = 10 \text{ V}$	h <sub>FE2</sub>	20		
$I_C = 5.0 \text{ mA}, V_{CE} = 10 \text{ V}$	h <sub>FE3</sub>	30	165	
$I_C = 5.0 \text{ mA}, V_{CE} = 10 \text{ V}, T_A = -55^{\circ}\text{C}$	$h_{FE4}$	10		

Small Signal Characteristics	Symbol	Min	Max	Unit
Magnitude of Common Emitter Small Signal Short Circuit Forward Current Transfer Ratio $V_{CE} = 10 \text{ V}, I_E = 2.0 \text{ mA}, f = 100 \text{ MHz}$	h <sub>fe</sub>	12	36	
Collector to Base Feedback Capacitance $V_{CB} = 10 \text{ V}, I_E = 0, 100 \text{ kHz} < f < 1 \text{ MHz}$	$C_{cb}$		0.8	pF
Collector to Base Time Constant $V_{CB} = 10 \text{ V}, I_E = 2.0 \text{ mA}, f = 63.6 \text{ MHz}$	$r_{b'}C_C$	1.0	8.0	ps
Common Emitter Small Signal Power Gain $V_{CE} = 10 \text{ V}, I_C = 2.0 \text{ mA}, f = 450 \text{ MHz}$	G <sub>PE</sub>	17	25	dB